IN THE CLAIMS:

1. (Currently Amended) A method in an OFDM direct conversion receiver configured for receiving a wireless signal, the method including:

recovering first and second components from the wireless signal by mixing the wireless signal with first and second carrier frequency signals, respectively, the second carrier frequency signal phase-shifted by a prescribed amount relative to the first carrier frequency signal;

filtering a pilot carrier from each of the first and second components to obtain filtered first and second components, respectively, the filtered first and second components having equal power distribution;

estimating amplitude and phase imbalances between the filtered first and second components according to a time domain based estimation algorithm; and

compensating for the amplitude and phase imbalances in the recovered first and second components.

2. (Original) The method of claim 1, wherein the filtering further includes suppressing any pilot energy from the first and second components.

3. (Original) The method of claim 2, wherein the filtering further includes filtering any DC energy from the first and second components.

4. (Original) The method of claim 3, wherein the filtering includes suppressing the pilot energy and the DC energy using a pilot notch filter and a DC notch filter, respectively.

5. (Currently Amended) An OFDM direct conversion receiver configured for receiving a wireless signal, the receiver including:

an analog front end configured for recovering first and second components from the wireless signal by mixing the wireless signal with first and second carrier frequency signals,

respectively, the second carrier frequency signal phase-shifted by a prescribed amount relative to the first carrier frequency signal;

a filter module configured for filtering a pilot carrier from each of the first and second components to obtain filtered first and second components, respectively, so that the filtered first and second components have equal power distribution;

an estimator module configured for estimating amplitude and phase imbalances between the filtered first and second components according to a time domain based estimation algorithm; and

a compensator configured for compensating for the amplitude and phase imbalances in the recovered first and second components.

6. (Original) The receiver of claim 5, wherein the filter module includes a first filter configured for suppressing any pilot energy from the first and second components.

7. (Original) The receiver of claim 6, wherein the filter module includes a second filter configured for filtering any DC energy from the first and second components.

8. (Original) The receiver of claim 7, wherein the first filter is a pilot notch filter and the second filter is a DC notch filter, respectively.